

**Abstract of the Disclosure**

5       An L bit for notifying another router of whether  
a self-router belongs to a connection-oriented network  
is newly provided in the options field of a conventional  
OSPF packet and the OSPF packet, including L bit is  
transmitted to another router. In this way, each router  
10       belonging a network can automatically recognize a  
router belonging to a connection-oriented network by  
detecting L bit. Then, by generating a routing tree,  
a connection-oriented network device can be identified  
in the routing tree and mapping between a  
connection-oriented network and a connectionless  
15       network can be performed in an edge device.

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